Express Mail No.   ER 893953848 US   PATENT

Date Deposited   December 14, 2004
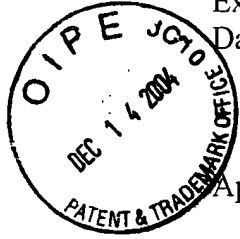
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Peter P. Van Bemmel	)	Group Art Unit: 2123
	)	
Serial No.: 09/520,259	)	Examiner: E. Garcia Otero
	)	
Filed: 03/07/2000	)	Atty. Docket. No.: 94.0027

For: METHOD AND APPARATUS FOR MAPPING UNCERTAINTY AND GENERATING A MAP OR A CUBE BASED ON CONDITIONAL SIMULATION OF RANDOM VARIABLES

Mail Stop – Fee Amendment
Commissioner for Patents
Post Office Box 1450
Alexandria, Virginia 22313-1450

RESPONSE AND AMENDMENT TO OFFICE ACTION
DATED JULY 15, 2004

Dear Sir:

AMENDMENTS

In response to the Office Action dated July 15, 2004, Applicant hereby amends the above-referenced application as follows:

I.   In the Specification

1.   In paragraph 43, the text has been modified to read:

[043] In accordance with the present invention, a new method and associated apparatus will generate probability maps, cutoff maps, and confidence limit maps **(collectively "risk-related maps")** in one single operation. In addition, in accordance with the present invention, given the novel methods of the present invention for generating the probability maps, cutoff maps, and confidence limit

maps, the new method and apparatus of the present invention will also generate a cube which illustrates a set of earth formation characteristics disposed within a cubic volume of an earth formation, the cube including a plurality of gridded cross sections, the grid of each cross section including a plurality of intersections, the novel method of the present invention generating a 'corrected value' for each intersection of each grid of each cross section in the cube.

2.   In paragraph 46, the text has been modified to read:

[046] When the uncertainty mapping software 16 of the present invention is executed by the processor 10 of figure 1, the processor 10 will generate and display (via the recorder or display device 14 of figure 1) three different types of **risk-related** maps: (1) Probability maps, (2) Lower cutoff maps, and (3) Confidence limit maps (also called "confidence maps) in one single operation. In addition, the processor 10 will generate and display the cube which illustrates the set of earth formation characteristics disposed within a cubic volume of an earth formation. The cube and each of the three different types of **risk-related** maps will be discussed in the following paragraphs.